

4. Head on - nodding, turning, rolling.
5. Abdominal on - left lying 2 to right lower.
6. Special Pt. on - (closing - out on that - draw
 her under foot - but consent)
 Public calling - passive & active
 - glass & water. (Only give about 2
 of these samples)

At 4 ft of legs - back grounds up rolling
 at own bottle, etc

At 4 ft on even with - working horse:

Abdominal - under with

Head on - Standing (see in)

Can't make consent now, estimating after
 getting down off feet - 4 ft points back along +
 side.

Order of Balance

1. Respiratory Movement
2. Head { open
 { dry
3. Movement for head & neck
4. Supporting Abdominal Movement
5. for neck & back.
6. Leg & movement
7. Respiratory

Scheme for Flat Feet. h. Creighton

1. Strch. grasp sitt - Chest lift. & lower. ✓
2. Str. st - easy arm. swing. ✓
3. Part. opp. grip - stand - slow hl. rais. & deep kn. bend. ✓
4. X l. sitt - H. bd & strch s-s. ✓

Special -

- a. Sitt - Toe wiggling. (one after the other)
- b. " - Ankle flexion with toes curled under ft - slowly extend & uncurl.
- c. " - Toes ab & ab. (slowly)
- d. "

5. Bk. ly. - Slowly sitt. up & ly. back.

6. Bk. clp. kn. bow sitt - bk. strch.

7. Bk ly. - Alt. kn. bend & strch w A bend & strch. u & d.

8. Sitt - Ch. expand & relax w. deep breathing.

Good

Flat Foot -

1. Feet astride jp. w hands clap. overhead.
2. Lying - Breathing in all parts of thorax.
3. X l. sitt - H. nodd (4 cts.)
4. Toe grip X l. sitt - Rocking horse or sawing or combination sawing in cl. st.
5. Cor. ly - 2 kn. updown.
6. Str. on outer borders of ft. & spec. ft. ex.
7. ly. - alt A updown. fling.
8. Cl. st - Alt. kn. rais. & lower.
9. ly - deep breathing.

Flat Feet.

1. Slack Sitt - Chest lifting.
2. Close .. - 2 A. bd. & str.
3. A. ly - alt. L upw. & r bd.
4. X l. sitt - Head nodding
- Special 5. Wg. High side - T. bdwd. banding
6. Low str. str. Sitt - T. raising Vent. by Vent. breathing.
7. Yd Str. ST - 2 Plane Arms carrying.
8. A. ly - alt. kn. str. lower, lift & bend
9. Close sitt - Deep breathing = arm rotation out
(chest expansion)

Absences of curves in back or demonstration

Flat Back:-

Cause:-

1. Over-correction of other postural defects.
2. Lying in bed.

Symptoms -

1. Normal convex curve in dorsal region is obliterated or pronounced.
2. Ribs protruding.

Treatments :-

1. Teach correct ^{and} position.
2. If giving Arch - then stop
3. Ex - feet & down. bend.

Scoliosis -

Rest - 1 hr flat on stomach

Obj of Phys treatment

1. get spine lined up in all direction
2. redistribution of wt & in line of gravity.
3. Re-educate P's sense of posture.
4. Obtain full & correct breathing on all parts of chest.
5. Strengthen general muscular tone.
6. Only Ex. for both sides of body - Symmetrical
7. Static holds - some stretch & massage the spine

Postural Scoliosis

1. Entirely cured by adequate treatment.

Structural

In young children when a moderate degree should be practically cured by good long continued treatment.

Terms

- R or L - according to convexity.
- of 2 R. in Don region - C curved.
- Can have R. or L. C or S curve compound - 4
- S - curved concavity?

Primary -

Secondary -

1. C - curve - postural
2. S - structural - change in lig & soft tissues.
3. S - soft structures (lig & os) & also long

Deformation occurring

Structural

Shows the reason & shows the structural changes have taken place in vert.

1. Simple or 2 Compound
1. Sometimes spoken of as C curved
2. " " " " S " " "

Triple curve at some extent.
When present add to 1 & 2. P. l. curve - don't
relate with 1 & 2. Curve

Location of Cristal Scoliosis -

Lower curves - greatest distortion in hips &
waistline. Lower. Scoliosis can be bent as
single curve or 1 component of 2 compound
curve - may be at 1. More frequent of female
greatest distortion at level of 2nd & 3rd.

Scars -

1. Displaced to convex side. Scar is concave
to that side is obliterated on that side. Waistline
on concave side sunken in. Folds of skin appearing on
flank. Apparent prominence of hip not by a demonstrable
bulge of Bk noted on convex side, caused by rotation
of vertebrae carrying with them the soft structures. -
less prominent than in dorsal region. Lateral mobility
of spine more free by bending to concave side. Forward
rotation of pelvis maybe noted.

Lower Curve - greatest distortion in thorax & shldrs.

Frequently single curve - not often part of other varieties.

May be at 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

In convex side thorax is displaced to that side - arms
less apparent - waistline flattened and 7 ribs appear
flared out. Thorax on side of convexity noticeably
high. Forward bent, prominence due to rotation of
Bk. & increased adhesion of soft structures.
to rotation of scap.

On concave side - thorax flattened. Scap. sunken &
distances dist. inf. & rotated in. Fold of skin accumulated
upward from waistline giving appearance of high
waist line from that side.

Present complications in appearance.

If Indosis predominates

R. dorsal, L. lumbar most often seen.

Often pointed on convex side. Alteration in joint planes. Rotation of Vert. bodies coincide to side of convexity. Parsion bodies more plastic and least fixed part of Vert. C. Intervertebral discs show same changes. Compression on concave side & become much wider.

Thorax altered in shape. Diaphragm assumes a lowering on side of convexity.

Causes - Malformation of spine. Conspicuous Sprengel's "Scapula" - malformation, small wing out - M. not developed. .. of thorax. Intertubercle growth - pressure.

B. Required anatomical asymmetry. May get scoliosis due to "wry neck". Short leg leg chain - seen.

C. Pathological changes - (scleritis - rachitis, TB or Pott's disease & tumor of spine - not treated by gymnastics) Scoliosis of the class Symptomatic of disease. Diseases of bones & joints in lower extremity or shoulder.

Distorting Soft Parts
1. Infantile Paralysis - great many cases of scoliosis
2. Due to growth pump

Inspected Head.

Causes (I may meet)

1. Poor lat occupation.
2. Habit
3. Violent Playng.
4. Side saddle Post.
5. Mechanical or industrial.
6. Poor lat weight bearing.
7. General debility (weakness).
8. Deficient muscle sense.

Examination of Spine.

1. General Condition of Patient
2. Notice whether thin or well developed
3. Healthy color a Candor.
4. Healthy strong.
5. Short exposure.
6. Flat Feet or other deformities measure legs.
7. Glasses. - No wear?
8. Dress - well fitting.
9. Examine neck & light

How Stand?

1. Back straight
2. Chin out.
3. Deformed shape
4. Neck prominent process.

After Back - Thorax.

1. Any deformities of chest - rickets
 2. Examine from side - Physiological changes
- Normal series. Mobility of Spine.
Side flex - rotat. - test to be.

Treatment of Postural Cases:-

1. Keet
2. Sym.
3. Alf. side ex for back.
4. Asymmetrical or Alf. sided ex.

Lower front thorax displaced on convex side
showing prominence on concave side. Lower end of
sternum displaced 2 convex side. Greatest
thoracic diam. ^{is} on 1 ant plane instead
of transverse. Lat deformities there may be
an increased normal curve
of both shoulders appear on same level usually
point to compensatory curve in cervical region.
Form of H. Cervical curve - head sinks on shoulder

Boas' lumbar curves - character of 2 curves - $\frac{1}{2}$ in
dorsal - $\frac{1}{2}$ in lumbar not assoc. with compensatory
curve
Cervical dorsal curve -

curve from base of skull to shoulder - fuller & less curved
shoulder is higher - scap. prominent on convex side
upheld A. hgt. away from side. Rotation of Vert.
& increase in angulation of ribs in lower part.
Rotation less evident above. I displaced
to side of convexity.